5/05/05

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1612RXD

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	FEB 25	CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered
NEWS	4	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	5	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	6	FEB 28	MEDLINE/LMEDLINE reloaded
NEWS	7	MAR 02	GBFULL: New full-text patent database on STN
NEWS	8	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	9	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	10	MAR 22	KOREAPAT now updated monthly; patent information enhanced
NEWS	11	MAR 22	Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS	12	MAR 22	PATDPASPC - New patent database available
NEWS	13	MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS	14	APR 04	EPFULL enhanced with additional patent information and new fields
NEWS	15	APR 04	EMBASE - Database reloaded and enhanced
NEWS	16	APR 18	New CAS Information Use Policies available online
NEWS	17	APR 25	Patent searching, including current-awareness alerts (SDIs), based on application date in CA/CAplus and USPATFULL/USPAT2 may be affected by a change in filing date for U.S. applications.
NEWS	18	APR 28	Improved searching of U.S. Patent Classifications for U.S. patent records in CA/CAplus

NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 14:28:23 ON 05 MAY 2005

=> file registry
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 14:28:30 ON 05 MAY 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 4 MAY 2005 HIGHEST RN 849790-35-8
DICTIONARY FILE UPDATES: 4 MAY 2005 HIGHEST RN 849790-35-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

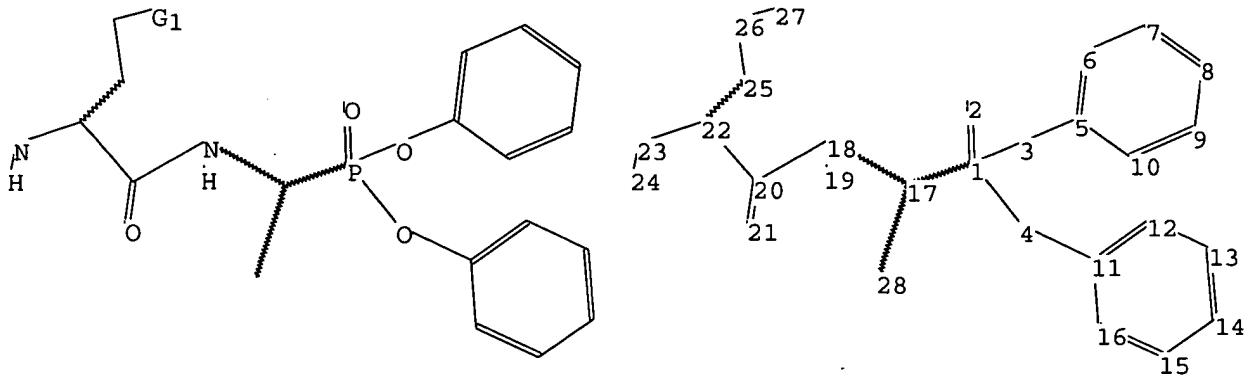
****
* *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
* *
****

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading C:\Program Files\Stnexp\Queries\10774562.str

5/05/05



chain nodes :
1 2 3 4 17 18 19 20 21 22 23 24 25 26 27 28
ring nodes :
5 6 7 8 9 10 11 12 13 14 15 16
chain bonds :
1-2 1-3 1-4 1-17 3-5 4-11 17-18 17-28 18-19 18-20 20-21 20-22 22-23
22-25 23-24 25-26 26-27
ring bonds :
5-6 5-10 6-7 7-8 8-9 9-10 11-12 11-16 12-13 13-14 14-15 15-16
exact/norm bonds :
1-2 1-3 1-4 3-5 4-11 17-18 18-20 20-21 22-23 26-27
exact bonds :
1-17 17-28 18-19 20-22 22-25 23-24 25-26
normalized bonds :
5-6 5-10 6-7 7-8 8-9 9-10 11-12 11-16 12-13 13-14 14-15 15-16

G1:C,O,S,N

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS 19:CLASS
20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS
28:CLASS

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.

=> sl1
SL1 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.

5/05/05

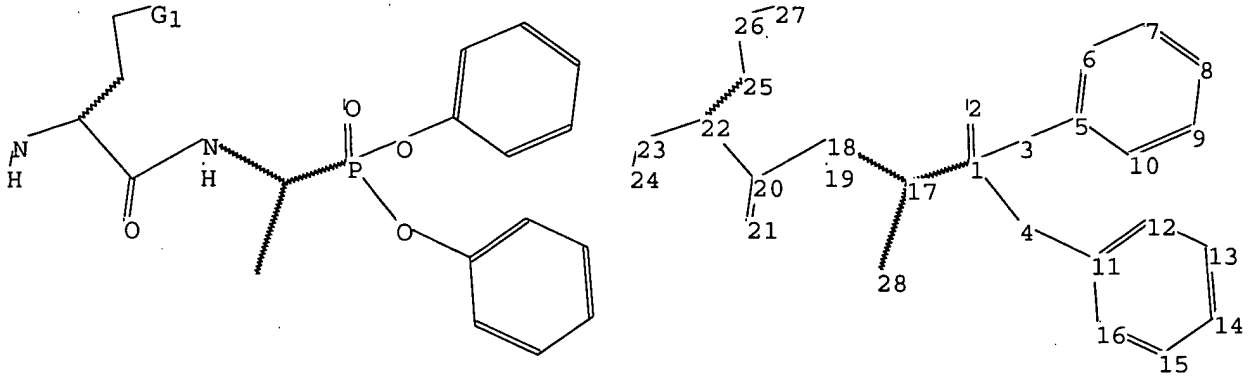
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s l1 ful
FULL SEARCH INITIATED 14:29:10 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1 TO ITERATE

100.0% PROCESSED 1 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L2 0 SEA SSS FUL L1

=>
Uploading C:\Program Files\Stnexp\Queries\10774562.str



chain nodes :
1 2 3 4 17 18 19 20 21 22 23 24 25 26 27 28
ring nodes :
5 6 7 8 9 10 11 12 13 14 15 16
chain bonds :
1-2 1-3 1-4 1-17 3-5 4-11 17-18 17-28 18-19 18-20 20-21 20-22 22-23
22-25 23-24 25-26 26-27
ring bonds :
5-6 5-10 6-7 7-8 8-9 9-10 11-12 11-16 12-13 13-14 14-15 15-16
exact/norm bonds :
1-2 1-3 1-4 3-5 4-11 17-18 18-20 20-21 22-23 26-27
exact bonds :
1-17 17-28 18-19 20-22 22-25 23-24 25-26
normalized bonds :
5-6 5-10 6-7 7-8 8-9 9-10 11-12 11-16 12-13 13-14 14-15 15-16

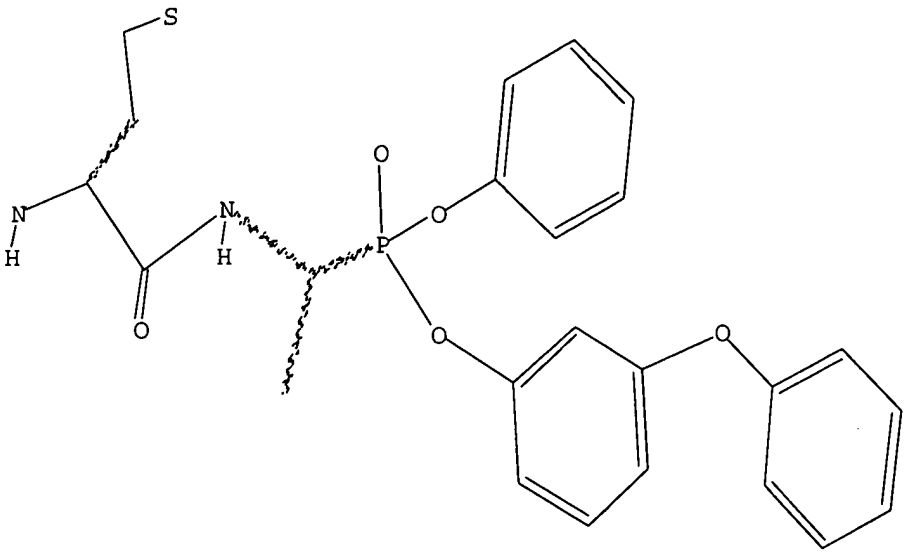
G1:C,O,S,N

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS 19:CLASS
20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS
28:CLASS

5/05/05

L3 STRUCTURE UPLOADED

=> d l3
L3 HAS NO ANSWERS
L3 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l3
SAMPLE SEARCH INITIATED 14:31:11 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 0 TO 0
PROJECTED ANSWERS: 0 TO 0

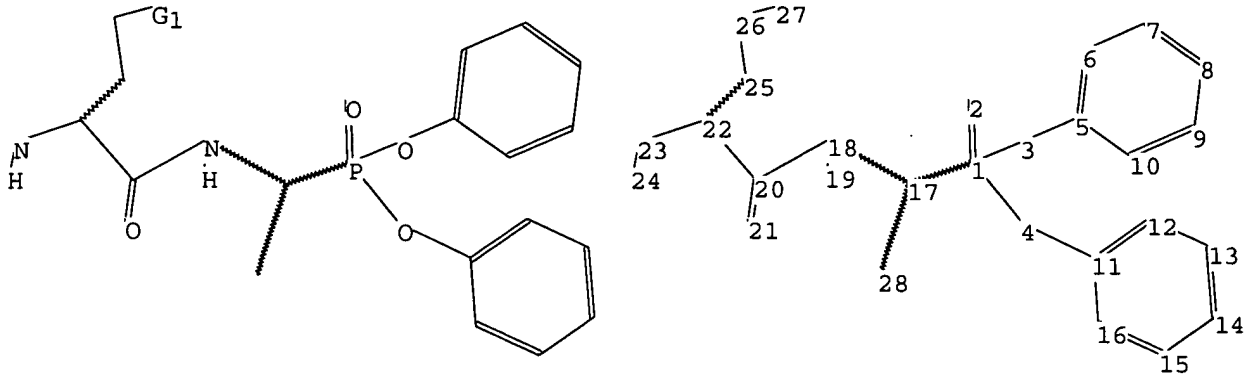
L4 0 SEA SSS SAM L3

=> s l3 ful
FULL SEARCH INITIATED 14:31:17 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1 TO ITERATE

100.0% PROCESSED 1 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L5 0 SEA SSS FUL L3

=>
Uploading C:\Program Files\Stnexp\Queries\10774562.str



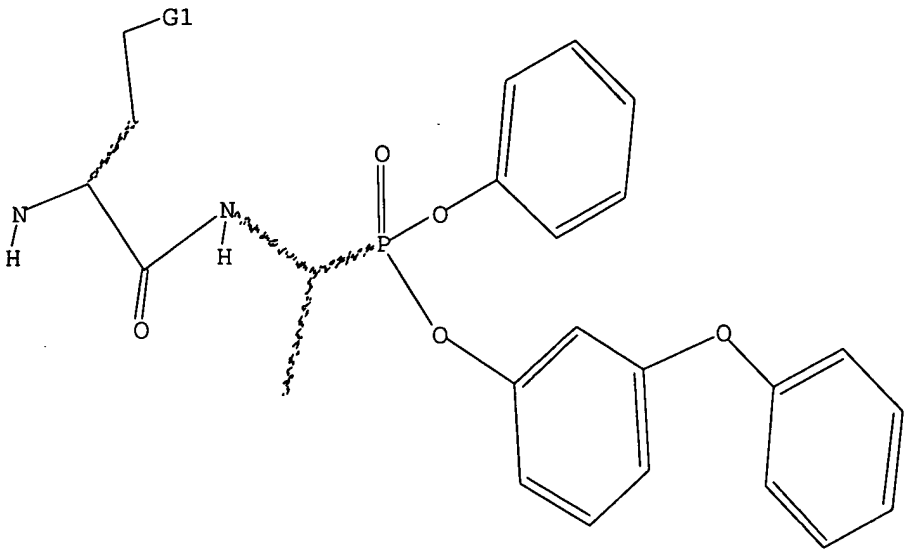
chain nodes :
1 2 3 4 17 18 19 20 21 22 23 24 25 26 27 28
ring nodes :
5 6 7 8 9 10 11 12 13 14 15 16
chain bonds :
1-2 1-3 1-4 1-17 3-5 4-11 17-18 17-28 18-19 18-20 20-21 20-22 22-23
22-25 23-24 25-26 26-27
ring bonds :
5-6 5-10 6-7 7-8 8-9 9-10 11-12 11-16 12-13 13-14 14-15 15-16
exact/norm bonds :
1-2 1-3 1-4 3-5 4-11 17-18 18-20 20-21 22-23 26-27
exact bonds :
1-17 17-28 18-19 20-22 22-25 23-24 25-26
normalized bonds :
5-6 5-10 6-7 7-8 8-9 9-10 11-12 11-16 12-13 13-14 14-15 15-16

G1:C,O,S,N

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS 19:CLASS
20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS
28:CLASS

L6 STRUCTURE UPLOADED

=> d l6
L6 HAS NO ANSWERS
L6 STR



G1 C,O,S,N

Structure attributes must be viewed using STN Express query preparation.

```
=>  s l6
SAMPLE SEARCH INITIATED 14:32:57 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      0 TO ITERATE

100.0% PROCESSED       0 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:             0 TO        0
PROJECTED ANSWERS:                0 TO        0

L7            0 SEA SSS SAM L6

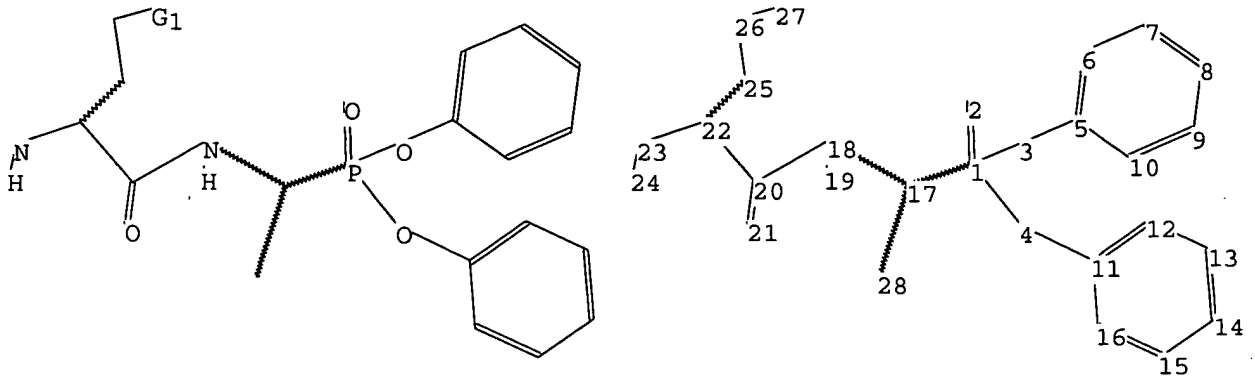
=> s l6 ful
FULL SEARCH INITIATED 14:33:02 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      1 TO ITERATE

100.0% PROCESSED       1 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

L8            0 SEA SSS FUL L6

=>
Uploading C:\Program Files\Stnexp\Queries\10774562.str
```

5/05/05



chain nodes :
1 2 3 4 17 18 19 20 21 22 23 24 25 26 27 28
ring nodes :
5 6 7 8 9 10 11 12 13 14 15 16
chain bonds :
1-2 1-3 1-4 1-17 3-5 4-11 17-18 17-28 18-19 18-20 20-21 20-22 22-23
22-25 23-24 25-26 26-27
ring bonds :
5-6 5-10 6-7 7-8 8-9 9-10 11-12 11-16 12-13 13-14 14-15 15-16
exact/norm bonds :
1-2 1-3 1-4 3-5 4-11 17-18 18-20 20-21 22-23 26-27
exact bonds :
1-17 17-28 18-19 20-22 22-25 23-24 25-26
normalized bonds :
5-6 5-10 6-7 7-8 8-9 9-10 11-12 11-16 12-13 13-14 14-15 15-16

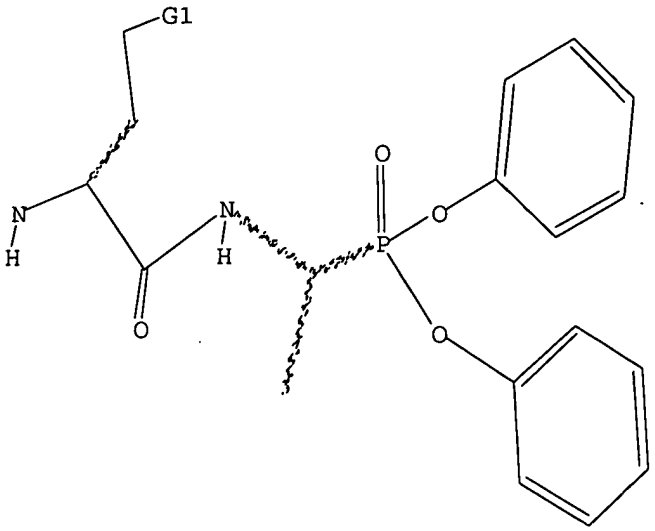
G1:C,O,S,N

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS 19:CLASS
20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS
28:CLASS

L9 STRUCTURE UPLOADED

=> d 19
L9 HAS NO ANSWERS
L9 STR

5/05/05



G1 C,O,S,N

Structure attributes must be viewed using STN Express query preparation.

```
=> s l9
SAMPLE SEARCH INITIATED 14:34:14 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     24 TO ITERATE

100.0% PROCESSED      24 ITERATIONS                                5 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          187 TO      773
PROJECTED ANSWERS:               5 TO      234

L10           5 SEA SSS SAM L9

=> s l9 ful
FULL SEARCH INITIATED 14:34:19 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    476 TO ITERATE

100.0% PROCESSED     476 ITERATIONS                               78 ANSWERS
SEARCH TIME: 00.00.01

L11           78 SEA SSS FUL L9

=> file caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                               647.90     648.11

FILE 'CAPLUS' ENTERED AT 14:34:23 ON 05 MAY 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)
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10714255

5/05/05

FILE COVERS 1907 - 5 May 2005 VOL 142 ISS 19
FILE LAST UPDATED: 4 May 2005 (20050504/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l11
L12 17 L11

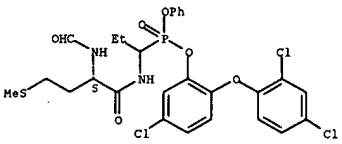
=> d abs bib hitstr 1-17

L12 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
AB This invention provides compds. and methods for using them to inhibit the growth of a microorganism that expresses peptide deformylase. Drugs such as mitomycin, bleomycin, ciprofloxacin, can be bound to linkers.
AN 2004:430717 CAPLUS
DN 140:429025
TI Peptide deformylase activated prodrugs
IN Ballatore, Carlo; Doppalapudi, Venkata Ramana; Sergeeva, Maria V.
PA Newbiotics, Inc., USA
SO PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

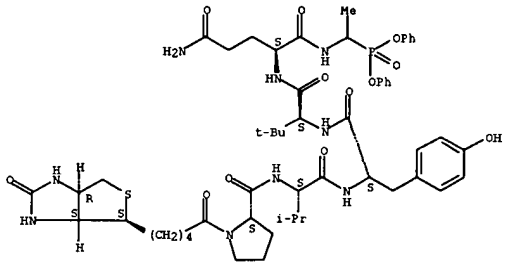
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004043400	A2	20040527	WO 2003-US36124	20031114
WO 2004043400	A3	20040930		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004236096	A1	20041125	US 2003-714255	20031114
PRAI US 2002-426771P	P	20021114		

OS MARPAT 140:429025
IT **691883-26-8P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(peptide deformylase activated prodrugs)
RN 691883-26-8 CAPLUS
CN Phosphonic acid, [1-[[(2S)-2-(formylamino)-4-(methylthio)-1-oxobutyl]amino]propyl]-, 5-chloro-2-(2,4-dichlorophenoxy)phenyl phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



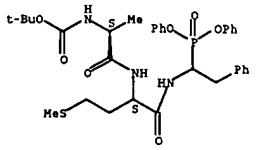
RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
AB Structurally diverse organophosphonate inhibitors targeting the active site of the enzyme were used to investigate the relationship of the active site and the dimer interface of wild-type protease in solution Positional scanning synthetic combinatorial libraries revealed Kaposi's sarcoma-associated herpesvirus protease to be highly specific, even at sites distal to the peptide bond undergoing hydrolysis. Specificity results were used to synthesize a hexapeptide diphenylphosphonate inhibitor of Kaposi's sarcoma-associated herpesvirus protease. The transition state analog inhibitors covalently phosphonylate the active site serine, freezing the enzyme structure during catalysis. An NMR-based assay was developed to monitor the native monomer-dimer equilibrium in solution and was used
to demonstrate the effect of protease inhibition on the quaternary structure of the enzyme. NMR, CD, and size exclusion chromatog. anal. showed that active site inhibition strongly regulates the binding affinity of the monomer-dimer equilibrium at the spatially sep. dimer interface of the
protease, shifting the equilibrium to the dimeric form of the enzyme. Furthermore, inhibitor studies revealed that the catalytic cycles of the spatially sep. active sites are independent. These results (i) provide direct evidence that peptide bond hydrolysis is integrally linked to the quaternary structure of the enzyme, (ii) establish a mol. mechanism of protease activation and stabilization during catalysis, and (iii) highlight potential implications of substoichiometric inhibition of the viral protease in developing herpesviral therapeutics.
AN 2004:413887 CAPLUS
DN 141:136103
TI Communication between the active sites and dimer interface of a herpesvirus protease revealed by a transition-state inhibitor
AU Marnett, Alan B.; Nomura, Anson M.; Shimba, Nobuhisa; De Montellano, Paul R. Ortiz; Craik, Charles S.
CS Program in Chemistry and Chemical Biology, Department of Pharmaceutical Chemistry, University of California, San Francisco, CA, 94143, USA
SO Proceedings of the National Academy of Sciences of the United States of America (2004), 101(18), 6870-6875
CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English
IT **727423-06-5**
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(communication between active sites and dimer interface of herpesvirus protease revealed by transition-state inhibitor)
RN 727423-06-5 CAPLUS
CN L-Glutamamide, 1-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]-L-prolyl-L-valyl-L-tyrosyl-3-methyl-L-valyl-N1-[1-(diphenoxyphosphinyl)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

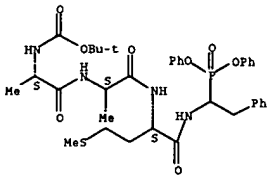
L12 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
AB Granzyme M is a member of a family of granule serine proteases that participate in target cell death initiated by cytotoxic lymphocytes. The enzyme is almost exclusively expressed in NK cell types. Granzyme M cleaves at the carboxy side of amino acids with long, hydrophobic side chains like Met, Leu, and Nle. To further study the substrate specificity of the enzyme, a series of peptide thiobenzyl esters was synthesized. The hydrolysis of the substrates with murine and human recombinant forms of granzyme M was observed The results show that the enzyme has a strong preference for Pro at the P2 position and Ala, Ser, or Asp at the P3 position. These results suggest that the protein residues of the S2 and S3 subsites form important binding interactions that aid in the selection of specific natural substrates for granzyme M. A series of inhibitors was also tested with granzyme M. None of the inhibitors were effective inactivators of granzyme M, including the general serine protease inhibitor, 3,4-dichloroisocoumarin, which is usually a potent inactivator of serine proteases. This suggests that inhibition of granzyme M may be difficult. Also reported for the first time is the method utilized to isolate granzyme M used in this and previous publications. The observations in this paper will be valuable in development of new potent inhibitors for granzyme M as well as assist in determining the biol. function of
the enzyme.
AN 2004:30246 CAPLUS
DN 140:402221
TI Subsite specificities of granzyme M: a study of inhibitors and newly synthesized thiobenzyl ester substrates
AU Rukamp, Brian J.; Kam, Chih-Min; Natarajan, Sudah; Bolton, Brad W.; Smyth, Mark J.; Kelly, Janice M.; Powers, James C.
CS The School of Chemistry and Biochemistry, Georgia Institute of Technology, Atlanta, GA, 30332-0400, USA
SO Archives of Biochemistry and Biophysics (2004), 422(1), 9-22
CODEN: ABBIA4; ISSN: 0003-9861
PB Elsevier Science
DT Journal
LA English
IT **688789-07-3 688789-08-4 688789-09-5**
688789-10-8 688789-11-9
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(subsite specificities of granzyme M for inhibitors and newly synthesized thiobenzyl ester substrates)
RN 688789-07-3 CAPLUS
CN L-Methioninamide, N-[(1,1-dimethylethoxy)carbonyl]-L-alanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



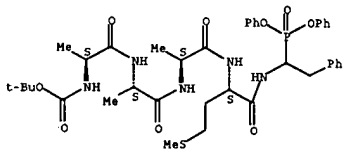
L12 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 688789-08-4 CAPLUS
CN L-Methioninamide, N-[(1,1-dimethylethoxy)carbonyl]-L-alanyl-L-alanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 688789-09-5 CAPLUS
CN L-Methioninamide, N-[(1,1-dimethylethoxy)carbonyl]-L-alanyl-L-alanyl-L-alanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

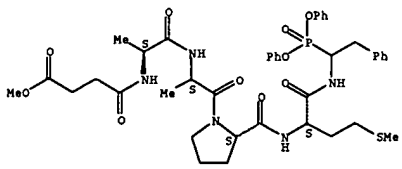


RN 688789-10-8 CAPLUS
CN L-Methioninamide, N-(4-methoxy-1,4-dioxobutyl)-L-alanyl-L-alanyl-L-prolyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L12 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
ALL CITATIONS AVAILABLE IN THE RE FORMAT

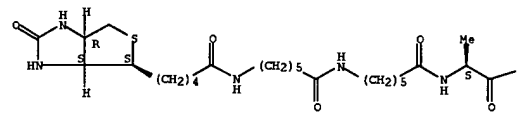
L12 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



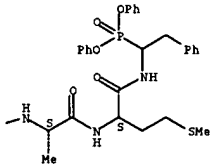
RN 688789-11-9 CAPLUS
CN L-Methioninamide, N-[6-[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]amino]-1-oxohexyl]-L-alanyl-L-alanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



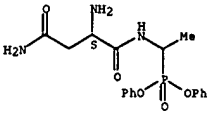
RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD

L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
AB In this paper, the authors present a parallel synthesis of several series of dipeptide di-Ph phosphonates that are known to be irreversible inhibitors of serine proteases. Polymer-assisted solution-phase synthesis (PASP) is used for the rapid and clean coupling between various α-aminoalkyl di-Ph phosphonate ester building blocks and com. available or easily accessible amino acids. These compds. were used for the rapid profiling of dipeptidyl peptidase II (DPP II) and the closely related dipeptidyl peptidase IV (DPP IV). A highly selective DPP II inhibitor was identified, N-cyclopentylglycyl-NHCH(Ph)P(:O)(OPh)2, that will be useful to discriminate between DPP II and DPP IV in biol. systems in order to further elucidate the biol. function of DPP II.
AN 2003:89910 CAPLUS
DN 138:287948
TI Rapid Parallel Synthesis of Dipeptide Diphenyl Phosphonate Esters as Inhibitors of Dipeptidyl Peptidases
AU Senten, Kristel; Danieels, Liesbeth; Van der Veken, Pieter; De Meester, Ingrid; Lambeir, Anne-Marie; Scharpe, Simon; Haemers, Achiel; Augustyns, Koen
CS Department of Medicinal Chemistry, University of Antwerp, Antwerp, B-2610, Belg.
SO Journal of Combinatorial Chemistry (2003), 5(3), 336-344
CODEN: JCCHFF; ISSN: 1520-4766
PB American Chemical Society
DT Journal
LA English
OS CASREACT 138:287948
IT **503820-02-8P 503820-04-0P 503820-16-4P**
503820-18-6P 503820-20-0P 503820-32-4P
503820-36-8P 503820-38-0P 503820-40-4P
503820-42-6P 503820-44-8P 503820-46-0P
503820-58-4P
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and biol. activity of dipeptide di-Ph phosphonate esters as inhibitors of dipeptidyl peptidases)
RN 503820-02-8 CAPLUS
CN Phosphonic acid, [1-[[(2S)-2,4-diamino-1,4-dioxobutyl]amino]ethyl]-, diphenyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 503820-01-7
CMF C18 H22 N3 O5 P

Absolute stereochemistry.



CM 2

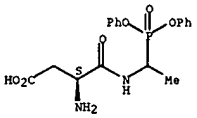
L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CRN 76-05-1
CMF C2 H F3 O2

RN 503820-04-0 CAPLUS
CN Butanoic acid, 3-amino-4-[[1-(diphenoxyphosphinyl)ethyl]amino]-4-oxo-, (3S)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 503820-03-9
CMF C18 H21 N2 O6 P

Absolute stereochemistry.



CM 2

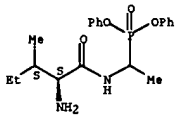
CRN 76-05-1
CMF C2 H F3 O2

RN 503820-16-4 CAPLUS
CN Phosphonic acid, [1-[[(2S,3S)-2-amino-3-methyl-1-oxopentyl]amino]ethyl]-, diphenyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 503820-15-3
CMF C20 H27 N2 O4 P

L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
Absolute stereochemistry.



CM 2

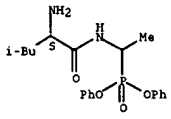
CRN 76-05-1
CMF C2 H F3 O2

RN 503820-18-6 CAPLUS
CN Phosphonic acid, [1-[[(2S)-2-amino-4-methyl-1-oxopentyl]amino]ethyl]-, diphenyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 503820-17-5
CMF C20 H27 N2 O4 P

Absolute stereochemistry.



CM 2

CRN 76-05-1
CMF C2 H F3 O2

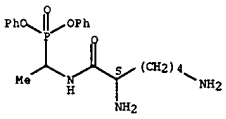
L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 503820-20-0 CAPLUS
CN Phosphonic acid, [1-[[(2S)-2,6-diamino-1-oxohexyl]amino]ethyl]-, diphenyl ester, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 503820-19-7
CMF C20 H28 N3 O4 P

Absolute stereochemistry.



CM 2

CRN 76-05-1
CMF C2 H F3 O2

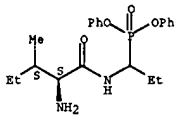
RN 503820-32-4 CAPLUS
CN Phosphonic acid, [1-[[(2S,3S)-2-amino-3-methyl-1-oxopentyl]amino]propyl]-, diphenyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 503820-31-3
CMF C21 H29 N2 O4 P

Absolute stereochemistry.

L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

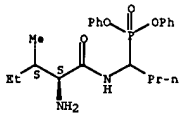
CRN 76-05-1
CMF C2 H F3 O2

RN 503820-36-8 CAPLUS
CN Phosphonic acid, [1-[[(2S,3S)-2-amino-3-methyl-1-oxopentyl]amino]butyl]-, diphenyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 503820-35-7
CMF C22 H31 N2 O4 P

Absolute stereochemistry.



CM 2

CRN 76-05-1
CMF C2 H F3 O2

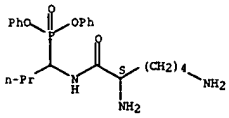
L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 503820-38-0 CAPLUS
CN Phosphonic acid, [1-[[(2S)-2,6-diamino-1-oxohexyl]amino]butyl]-, diphenyl ester, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 503820-37-9
CMF C22 H32 N3 O4 P

Absolute stereochemistry.



CM 2

CRN 76-05-1
CMF C2 H F3 O2

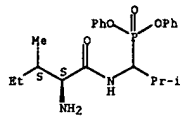
RN 503820-40-4 CAPLUS
CN Phosphonic acid, [1-[[(2S,3S)-2-amino-3-methyl-1-oxopentyl]amino]-2-methylpropyl]-, diphenyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 503820-39-1
CMF C22 H31 N2 O4 P

Absolute stereochemistry.

L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

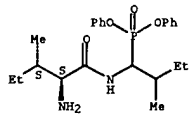
CRN 76-05-1
CMF C2 H F3 O2

RN 503820-42-6 CAPLUS
CN Phosphonic acid, [1-[[(2S,3S)-2-amino-3-methyl-1-oxopentyl]amino]-2-methylbutyl]-, diphenyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 503820-41-5
CMF C23 H33 N2 O4 P

Absolute stereochemistry.



CM 2

CRN 76-05-1
CMF C2 H F3 O2

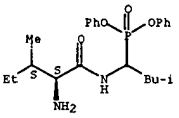
L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 503820-44-8 CAPLUS
CN Phosphonic acid, [1-[[(2S,3S)-2-amino-3-methyl-1-oxopentyl]amino]-3-methylbutyl]-, diphenyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 503820-43-7
CMF C23 H33 N2 O4 P

Absolute stereochemistry.



CM 2

CRN 76-05-1
CMF C2 H F3 O2

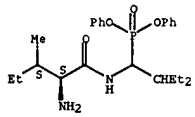
RN 503820-46-0 CAPLUS
CN Phosphonic acid, [1-[[(2S,3S)-2-amino-3-methyl-1-oxopentyl]amino]-2-ethylbutyl]-, diphenyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 503820-45-9
CMF C24 H35 N2 O4 P

Absolute stereochemistry.

L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

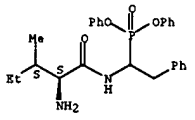
CRN 76-05-1
CMF C2 H F3 O2

RN 503820-58-4 CAPLUS
CN Phosphonic acid, [1-[[(2S,3S)-2-amino-3-methyl-1-oxopentyl]amino]-2-phenylethyl]-, diphenyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 503820-57-3
CMF C26 H31 N2 O4 P

Absolute stereochemistry.



CM 2

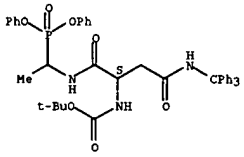
CRN 76-05-1
CMF C2 H F3 O2

L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

IT 503821-05-4P 503821-06-5P 503821-12-3P
503821-13-4P 503821-14-5P 503821-21-4P
503821-23-6P 503821-24-7P 503821-25-8P
503821-26-9P 503821-27-0P 503821-28-1P
503821-35-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and biol. activity of dipeptide di-Ph phosphonate esters as inhibitors of dipeptidyl peptidases)

RN 503821-05-4 CAPLUS
CN Carbamic acid, [(1S)-1-[[[1-(diphenoxyphosphinyl)ethyl]amino]carbonyl]-3-oxo-3-[(triphenylmethyl)amino]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

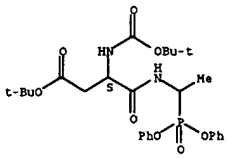
Absolute stereochemistry.



RN 503821-06-5 CAPLUS
CN Butanoic acid, 3-[[(1,1-dimethylethoxy)carbonyl]amino]-4-[[1-(diphenoxyphosphinyl)ethyl]amino]-4-oxo-, 1,1-dimethylethyl ester, (3S)- (9CI) (CA INDEX NAME)

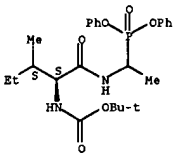
Absolute stereochemistry.

L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



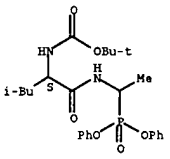
RN 503821-12-3 CAPLUS
CN Carbamic acid, [(1S,2S)-1-[[[1-(diphenoxyphosphinyl)ethyl]amino]carbonyl]-2-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 503821-13-4 CAPLUS
CN Carbamic acid, [(1S)-1-[[[1-(diphenoxyphosphinyl)ethyl]amino]carbonyl]-3-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

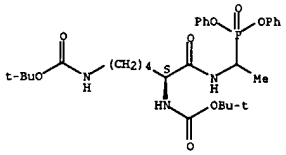
Absolute stereochemistry.



RN 503821-14-5 CAPLUS
CN Carbamic acid, [(1S)-1-[[[1-(diphenoxyphosphinyl)ethyl]amino]carbonyl]-1,5-pentanediyl]bis-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

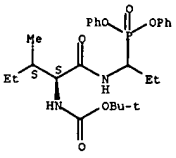
L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

Absolute stereochemistry.



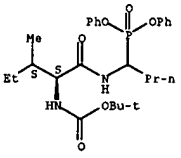
RN 503821-21-4 CAPLUS
CN Carbamic acid, [(1S,2S)-1-[[[1-(diphenoxyphosphinyl)propyl]amino]carbonyl]-2-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 503821-23-6 CAPLUS
CN Carbamic acid, [(1S,2S)-1-[[[1-(diphenoxyphosphinyl)butyl]amino]carbonyl]-2-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

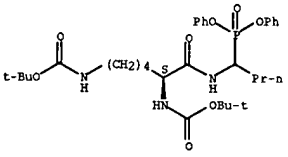
Absolute stereochemistry.



RN 503821-24-7 CAPLUS
CN Carbamic acid, [(1S)-1-[[[1-(diphenoxyphosphinyl)butyl]amino]carbonyl]-1,5-pentanediyl]bis-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

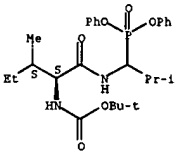
Absolute stereochemistry.

L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



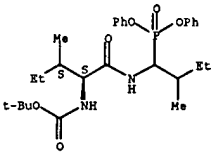
RN 503821-25-8 CAPLUS
CN Carbamic acid, [(1S,2S)-1-[[[1-(diphenoxyphosphinyl)-2-methylpropyl]amino]carbonyl]-2-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



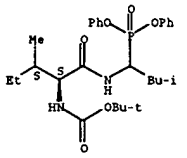
RN 503821-26-9 CAPLUS
CN Carbamic acid, [(1S,2S)-1-[[[1-(diphenoxyphosphinyl)-2-methylbutyl]amino]carbonyl]-2-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



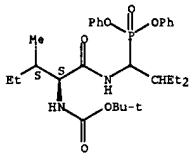
RN 503821-27-0 CAPLUS
CN Carbamic acid, [(1S,2S)-1-[[[1-(diphenoxyphosphinyl)-3-methylbutyl]amino]carbonyl]-2-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
Absolute stereochemistry.



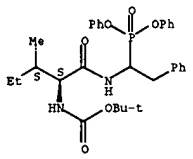
RN 503821-28-1 CAPLUS
CN Carbamic acid, [(1S,2S)-1-[[[1-(diphenoxyphosphinyl)-2-ethylbutyl]amino]carbonyl]-2-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 503821-35-0 CAPLUS
CN Carbamic acid, [(1S,2S)-1-[[[1-(diphenoxyphosphinyl)-2-phenylethyl]amino]carbonyl]-2-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

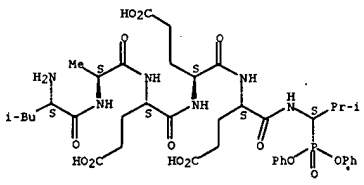
L12 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
AB The aim of the invention is to develop a method for producing catalytic antibodies to proteins and peptides, in particular to gp120, using animals with spontaneous or induced autoimmune pathologies. Various methods for producing catalytic antibodies are disclosed. The inventive methods make it possible to create a catalytic vaccine which, when injected to a patient exhibits adhesive properties in relation to specific antigen simultaneously with antigen-degrading function, thereby inhibiting the progression of the disease. Said invention discloses the method for the autoimmunization of SJL mice by fusion proteins containing a classical peptide
epitope (for example, myelin basic protein or fragments thereof) and the potential substrate of the target catalytic antibody (for example, HIV-1 gp120 or fragments thereof). The invention also comprises the method for immunizing autoimmune animals with highly reactive chemical compds., which can select catalytic clones containing peptide fragments of proteolytically degraded gp120.
AN 2002:832912 CAPLUS
DN 137:351494
TI Method for producing catalytic antibodies, antigens for immunization and nucleotide sequences
IN Gabibov, Alexandr Gabibovich; Kolesnikov, Alexandr Vladimirovich; Ponomarenko, Natalya Alexandrovna; Alexandrovna, Elena Sergeevna; Borobiev, Ivan Ivanovich; Demin, Alexandr Viktorovich
PA ASGL- Farmatsevticheskie Innovatsii, Zakrytoe Aktsionernoe Obshchestvo, Russia
SO PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DT Patent
LA Russian
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002086058	A2	20021031	WO 2002-RU177	20020418
	WO 2002086058	C2	20021212		
	WO 2002086058	A3	20030123		
	W: AU, BG, BY, CA, CN, CZ, EE, HU, IL, JP, KR, NO, PL, SK, UA, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	RU 2221873	C2	20040120	RU 2001-110759	20010424
	EP 1394261	A2	20040303	EP 2002-739002	20020418
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	JP 2004527248	T2	20040909	JP 2002-583573	20020418
	US 2004265975	A1	20041230	US 2004-475706	20040512
PRAI	RU 2001-110759	A	20010424		
	WO 2002-RU177	W	20020418		

IT 473464-36-7P
RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(polyclonal catalytic antibodies preparation, antigens for immunization, and
nucleotide sequences using animals with spontaneous or induced autoimmune pathologies)
RN 473464-36-7 CAPLUS
CN L-α-Glutamine, L-leucyl-L-alanyl-L-α-glutamyl-L-α-glutamyl-N-[(1S)-1-(diphenoxyphosphinyl)-2-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L12 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L12 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

AB This letter describes the parallel synthesis of dipeptide p-nitroanilides and dipeptide di-Ph phosphonates, compds. that can be used as substrates and irreversible inhibitors for the rapid profiling of dipeptidyl peptidases. A polymer-assisted solution-phase synthesis was used for a rapid and clean coupling between easily available building blocks.

AN 2001:905514 CAPLUS

DN 136:247867

TI Polymer-assisted solution-phase parallel synthesis of dipeptide p-nitroanilides and dipeptide diphenyl phosphonates

AU Senten, Kristel; Van der Veken, Pieter; Bal, Gunther; Haemers, Achiel; Augustyns, Koen

CS Department of Medicinal Chemistry, University of Antwerp (UIA), Antwerp, B-2610, Belg.

SO Tetrahedron Letters (2001), 42(52), 9135-9138
CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

LA English

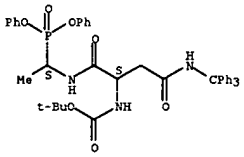
OS CASREACT 136:247867

IT **404012-65-3P 404012-66-4P 404012-69-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(solution-phase parallel synthesis of dipeptide p-nitroanilides and dipeptide di-Ph phosphonates)

RN 404012-65-3 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(1S)-1-(diphenoxyphosphinyl)ethyl]amino]carbonyl]-3-oxo-3-[(triphenylmethyl)amino]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

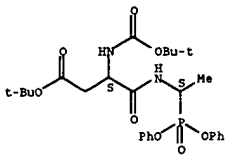


RN 404012-66-4 CAPLUS

CN Butanoic acid, 3-[[(1,1-dimethylethoxy)carbonyl]amino]-4-[[(1S)-1-(diphenoxyphosphinyl)ethyl]amino]-4-oxo-, 1,1-dimethylethyl ester, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

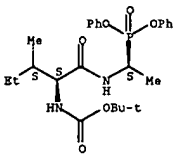
L12 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 404012-69-7 CAPLUS

CN Carbamic acid, [(1S,2S)-1-[[[(1S)-1-(diphenoxyphosphinyl)ethyl]amino]carbonyl]-2-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

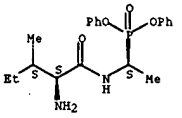


IT **178150-13-5P 404012-75-5P 404012-76-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(solution-phase parallel synthesis of dipeptide p-nitroanilides and dipeptide di-Ph phosphonates)

RN 178150-13-5 CAPLUS

CN Phosphonic acid, [(1S)-1-[[(2S,3S)-2-amino-3-methyl-1-oxopentyl]amino]ethyl]-, diphenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

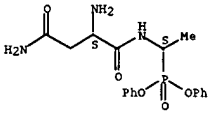


RN 404012-75-5 CAPLUS

CN Phosphonic acid, [(1S)-1-[[(2S)-2,4-diamino-1,4-dioxobutyl]amino]ethyl]-,

L12 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
diphenyl ester (9CI) (CA INDEX NAME)

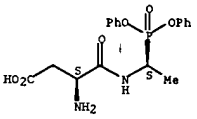
Absolute stereochemistry.



RN 404012-76-6 CAPLUS

CN Butanoic acid, 3-amino-4-[[(1S)-1-(diphenoxyphosphinyl)ethyl]amino]-4-oxo-, (3S)- (9CI) (CA INDEX NAME)

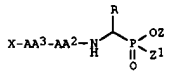
Absolute stereochemistry.



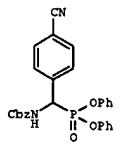
RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

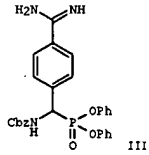
GI



I



II



III

AB Peptidyl α-aminoalkylphosphonic acid diesters with basic substituents I [R = Ph, CH2Ph, C1-6 alkyl substituted with amidino, guanidino, isothioureido, or amino; Z = C1-6 perfluoroalkyl, Ph, Ph substituted with J; Z1 = C1-6 perfluoroalkyloxy, phenoxy, phenoxy substituted with J, C1-6 alkoxy, halo; J = halo, C1-6 alkyl, C1-6 perfluoroalkyl, C1-6 alkoxy, NO2, CN, OH, CO2H, amino, C1-6 alkylamino, C2-12 dialkylamino, C1-6 acyl, C1-6 alkoxycarbonyl, C1-6 alkylthio; AA2, AA3 = independently bond, blocked or unblocked D-, L-, or achiral amino acid residue; X = Y-CO, Y-SO2; Y = Ph-CH:CH, (2-furyl)CH:CH, (2-thienyl)CH:CH, (2-Pyridyl)CH:CH, 2-phenoxyphenyl, 3-phenoxyphenyl, substituted Ph, C1-6 alkenyl substituted with a heterocyclic group, (un)substituted Ph, or (un)substituted naphthyl] and pharmaceutically acceptable salts thereof were prepared as compds. for use in inhibiting serine proteases with trypsin-like specificity and as anti-inflammatory agents, anticoagulants, and anti-tumor agents. Thus, condensation of 9.75 g 4-cyanobenzaldehyde with 7.65 g benzyl carbamate and 13.5 mL tri-Ph phosphite in 20 mL glacial acetic acid gave 70% cyanophenylphosphonate II. Amidation of II with ammonia and ammonium chloride in MeOH gave amidinophenyl derivative III as its HCl salt. III and related compds. were tested for inhibition of a variety of serine proteases.

AN 1999:582644 CAPLUS

DN 131:214554

TI Preparation of basic α-aminoalkylphosphonate derivatives as serine protease inhibitors

IN Powers, James C.; Jackson, Delwin S.; Ni, Liming

PA Georgia Tech Research Corp., USA

SO U.S., 18 pp., Cont.-in-part of U.S. 5,686,419.
CODEN: USXXAM

DT Patent

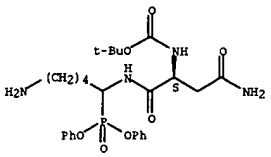
LA English

FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

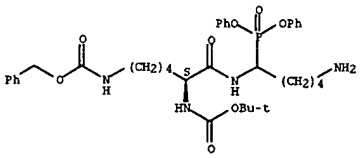
L12 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
PI US 5952307 A 19990914 US 1997-907840 19970814
US 5686419 A 19971111 US 1994-184286 19940121
PRAI US 1994-184286 A2 19940121
OS MARPAT 131:214554
IT **242817-32-9P 242817-33-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of basic α-aminoalkylphosphonate derivs. as serine protease inhibitors)
RN 242817-32-9 CAPLUS
CN Carbamic acid, [(1S)-3-amino-1-[[[5-amino-1-(diphenoxyphosphinyl)pentyl]amino]carbonyl]-3-oxopropyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 242817-33-0 CAPLUS
CN Carbamic acid, [(1S)-1-[[[5-amino-1-(diphenoxyphosphinyl)pentyl]amino]carbonyl]-5-[[(phenylmethoxy)carbonyl]amino]pentyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

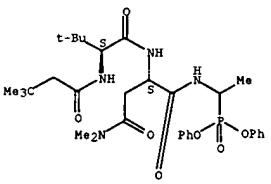
Absolute stereochemistry.



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

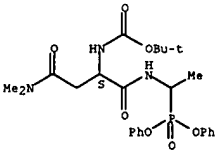
L12 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(peptidomimetic inhibitors of the human cytomegalovirus protease)
RN 198956-15-9 CAPLUS
CN L-Aspartamide, N-(3,3-dimethyl-1-oxobutyl)-3-methyl-L-valyl-N1-[1-(diphenoxyphosphinyl)ethyl]-N4,N4-dimethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **198956-53-5P 198956-55-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(peptidomimetic inhibitors of the human cytomegalovirus protease)
RN 198956-53-5 CAPLUS
CN Carbamic acid, [(1S)-3-(dimethylamino)-1-[[[1-(diphenoxyphosphinyl)ethyl]amino]carbonyl]-3-oxopropyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

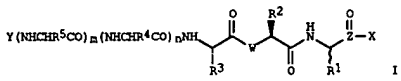
Absolute stereochemistry.



RN 198956-55-7 CAPLUS
CN L-Aspartamide, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-valyl-N1-[1-(diphenoxyphosphinyl)ethyl]-N4,N4-dimethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L12 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
GI

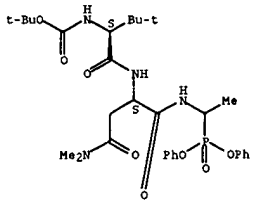


AB Compds. I [Z = C or P; X = CF3, C2F5, benzothiazole, CF2CONHR6, CONHR6 [R6 = alkyl, (un)substituted Ph or cyclohexyl], etc.; R1 = H, Me, Et; R2 = CH2SO2NH2, alkyl, arylalkyl, etc.; R3 = alkyl, carboxyalkyl, adamantyl; R4 = alkyl, arylalkyl; R5 = H, CH2OH; W = NH, CH2, CHMe; Y = H, t-BuCH2CH2, acyl; m, n = 0, 1] were prepared as inhibitors of the human cytomegalovirus (HCMV) protease. Thus, N1-(3,3,3-trifluoro-1-methyl-2-oxopropyl)-(2S)-2-[(1S)-2-methyl-1-[[(1S)-2-methyl-1-[(methylcarboxamido)methyl]carboxamidopropyl]carboxamido]propylcarboxamido]butanediamide, prepared by the solid-phase method, showed IC50 = 1.8±0.3 μM for inhibition of HCMV No protease.
AN 1998:485077 CAPLUS
DN 129:122872
TI Peptidomimetic inhibitors of the human cytomegalovirus protease
IN Bailey, Murray; Fazal, Gulrez; Lavallee, Pierre; Ogilvie, William; Poupart, Marc-Andre
PA Boehringer Ingelheim (Canada) Ltd., Can.
SO PCT Int. Appl., 165 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9829435	A1	19980709	WO 1997-CA1004	19971223
W: CA, JP, MX, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 948523	A1	19991013	EP 1997-951048	19971223
EP 948523	B1	20040317		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001508418	T2	20010626	JP 1998-529511	19971223
CA 2276109	C	20031118	CA 1997-2276109	19971223
CA 2276109	AA	19980709		
AT 261988	E	20040415	AT 1997-951048	19971223
US 6291640	B1	20010918	US 1998-171554	19981019
PRAI US 1996-34041P	P	19961227		
US 1997-52860P	P	19970717		
US 1997-59806P	P	19970923		
WO 1997-CA1004	W	19971223		

OS MARPAT 129:122872
IT **198956-15-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

L12 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

AB One mechanism of killing by cytotoxic lymphocytes involves the exocytosis of specialized granules. The released granules contain perforin, which assembles into pores in the membranes of cells targeted for death. Serine proteases termed granzymes are present in the cytotoxic granules and include several chymases (with chymotrypsin-like specificity of cleavage). One chymase is selectively reactive with an inhibitor, biotinyl-Aca-Aca-Phe-Leu-PheP(OPh)2, that blocks perforin lysis. The authors report the purification and characterization of this chymase, lymphocyte chymase I, from rat natural killer cell (RNK)-16 granules. Lymphocyte chymase I is 30 kDa with a pH 7.5 to 9 optimum and primary substrate preference for tryptophan, a preference distinct from rat mast cell chymases. This chymase also reacts with other selective serine protease inhibitors that block perforin pore formation. It elutes by Cu2+-immobilized metal affinity chromatog. with other granzymes and has the N-terminal protein sequence conserved among granzymes. Chymase I reduces pore formation when preincubated with perforin at 37°. In contrast, addition of the chymase without preincubation had little effect on lysis. It should be noted that the perforin preparation contained sufficient residual chymase activity to support lysis. Thus, the reduction of lysis may represent an effect of excess prolytic chymase I or a means to limit perforin lysis of bystander cells. In contrast, other chymases and granzyme K were without effect when added to perforin during similar preincubation. Identification of the natural substrate of chymase I will help resolve how it regulates perforin-mediated pore formation.

AN 1998:302495 CAPLUS

DN 129:80594

TI Purification and characterization of lymphocyte chymase I, a granzyme implicated in perforin-mediated lysis

AU Woodard, Susan L.; Fraser, Stephanie A.; Winkler, Ulrike; Jackson, Delwin S.; Kam, Chih-Min; Powers, James C.; Hudig, Dorothy

CS Department of Microbiology, School of Medicine, University of Nevada, Reno, NV, 89557, USA

SO Journal of Immunology (1998), 160(10), 4988-4993
CODEN: JOIMA3; ISSN: 0022-1767

PB American Association of Immunologists

DT Journal

LA English

IT **195623-14-4 209335-74-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(inhibition of lymphocyte chymase I by)

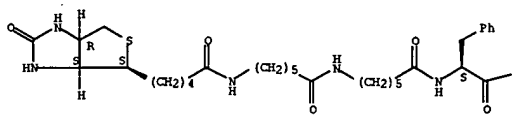
RN 195623-14-4 CAPLUS

CN L-Leucinamide, N-[6-[[6-[[5-[(3aS,4S,6aS)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]amino]-1-oxohexyl]-L-phenylalanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]- (9CI) (CA INDEX NAME)

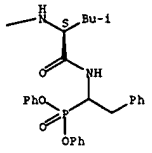
Absolute stereochemistry.

L12 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A



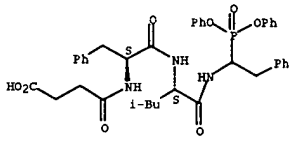
PAGE 1-B



RN 209335-74-0 CAPLUS

CN L-Leucinamide, N-(3-carboxy-1-oxopropyl)-L-phenylalanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]- (9CI) (CA INDEX NAME)

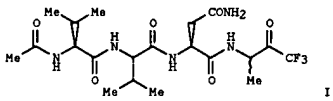
Absolute stereochemistry.



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

GI



I

AB The development of peptidomimetic inhibitors of the human cytomegalovirus (HCMV) protease showing sub-micromolar potency in an enzymic assay is described. Selective substitution of the amino acid residues of these inhibitors led to the identification of tripeptide inhibitors showing improvements in inhibitor potency of 27-fold relative to inhibitor I based upon the natural tetrapeptide sequence. Small side chains at P1 were well tolerated by this enzyme, a fact consistent with previous observations. The S2 binding pocket of HCMV protease was very permissive, tolerating lipophilic and basic residues. The substitutions tried at P3 indicated that a small increase in inhibitor potency could be realized by the substitution of a tert-leucine residue for valine. Substitutions of the N-terminal capping group did not significantly affect inhibitor potency. Pentafluoroethyl ketones, α,α-difluoro-β-keto amides, phosphonates and α-keto amides were all effective substitutions for the activated carbonyl component and gave inhibitors which were selective for HCMV protease. A slight increase in potency was observed by lengthening the P1' residue of the α-keto amide series of inhibitors. This position also tolerated a variety of groups making this a potential site for future modifications which could modulate the physicochem. properties of these mols.

AN 1997:727371 CAPLUS

DN 128:13422

TI Peptidomimetic Inhibitors of the Human Cytomegalovirus Protease

AU Ogilvie, William; Bailey, Murray; Poupart, Marc-Andre; Abraham, Abraham; Bhavsar, Amit; Bonneau, Pierre; Bordeleau, Josee; Bousquet, Yves; Chabot, Catherine; Duceppe, Jean-Simon; Fazal, Gulrez; Goulet, Sylvie; Grand-Maitre, Chantal; Guse, Ingrid; Halmos, Ted; Lavallee, Pierre; Leach, Michael; Malenfant, Eric; O'Meara, Jeff; Plante, Raymond; Plouffe, Celine; Poirier, Martin; Soucy, Francois; Yoakim, Christiane; Deziel, Robert

CS Bio-Mega Research Division, Boehringer Ingelheim (Canada) Ltd., Laval, QC, H7S 2G5, Can.

SO Journal of Medicinal Chemistry (1997), 40(25), 4113-4135
CODEN: JMCMAR; ISSN: 0022-2623

PB American Chemical Society

DT Journal

LA English

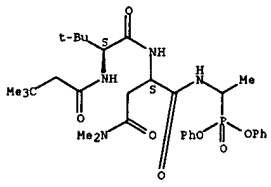
IT **198956-15-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and structure-activity of peptidomimetic inhibitors of the human cytomegalovirus protease)

RN 198956-15-9 CAPLUS

CN L-Aspartamide, N-(3,3-dimethyl-1-oxobutyl)-3-methyl-L-valyl-N1-[1-(diphenoxyphosphinyl)ethyl]-N4,N4-dimethyl- (9CI) (CA INDEX NAME)

L12 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

Absolute stereochemistry.

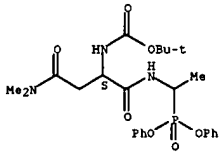


IT **198956-53-5P 198956-55-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and structure-activity of peptidomimetic inhibitors of the human cytomegalovirus protease)

RN 198956-53-5 CAPLUS

CN Carbamic acid, [(1S)-3-(dimethylamino)-1-[[[1-(diphenoxyphosphinyl)ethyl]amino]carbonyl]-3-oxopropyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

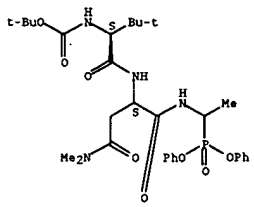


RN 198956-55-7 CAPLUS

CN L-Aspartamide, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-valyl-N1-[1-(diphenoxyphosphinyl)ethyl]-N4,N4-dimethyl- (9CI) (CA INDEX NAME)

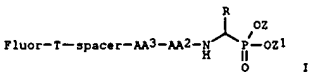
Absolute stereochemistry.

L12 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RE.CNT 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
GI

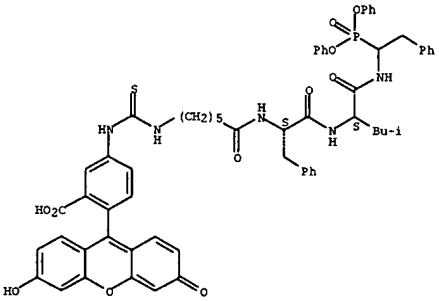


AB Fluorescent 1-peptidylaminoalkanephosphonate derivs. I [Fluor = 5- or 6-substituted fluorescein derivative, 5- or 6-substituted tetramethylrhodamine deriv, 5- or 6-substituted Texas Red derivative, other aromatic fluorescent group with an emission maximum of 350-700 nm; T = NHCO, NHCS, CS, CO, SO2; spacer = NH(CH2)5CO, NH(CH2)5CONH(CH2)5CO, other organic structure which is 3-24 Å long including at least group CH2CH2, CONH, NHCO, CH2CO, CH2NH, NHCH2, or C6H4 in the backbone; AA3, AA4 = independently blocked or unblocked, L- or D-amino acid residue; R = side chain of blocked or unblocked amino acid, B-substituted Ph or benzyl; B = amidino, guanidino, isothioureido, amino; Z, Z1 = independently Ph substituted with 0-3 halo, C1-6 alkyl, C1-6 perfluoroalkyl, C1-6 alkoxy, NO2, or CN groups], and their use in detecting and studying the distribution of serine proteases in cells and biol. systems are described. Thus, coupling of fluorescein isothiocyanate with Me 6-aminocaprylate, saponification of the Me ester, and peptide coupling with tripeptide phosphonate analogs gave title compds. I [Fluor = 5-fluoresceinyl, T = CS, spacer = NH(CH2)5CO; AA3 = AA2 = Ala, R = Me, CH2CH2SMe; AA3 = Phe, AA2 = Leu, R = CH2Ph] (II). II inhibited serine proteases with efficiencies equal to or greater than the corresponding N-tert-butoxycarbonyl (Boc) or N-benzyloxycarbonyl (Z) tripeptide phosphonates.
AN 1997:701463 CAPLUS
DN 127:359112
TI Preparation of fluorescent 1-peptidylaminoalkanephosphonate derivatives
IN Powers, James C.; Abuelyaman, Ahmed S.
PA Georgia Tech Research Corp., USA
SO U.S., 14 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5681821	A	19971028	US 1994-324809	19941018
	US 5916877	A	19990629	US 1997-911380	19970814
PRAI	US 1994-324809	A2	19941018		

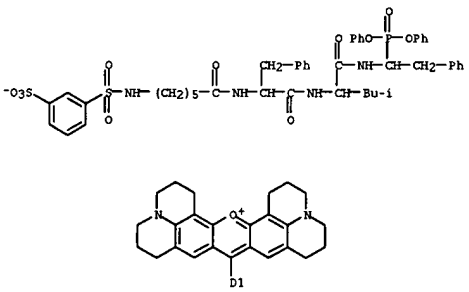
OS MARPAT 127:359112
IT **197857-46-8P 197984-51-3P 198629-89-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of fluorescent peptidylaminoalkanephosphonate derivs. for detecting serine proteases in biol. media)
RN 197857-46-8 CAPLUS
CN L-Leucinamide, N-[6-[[[[3-carboxy-4-(6-hydroxy-3-oxo-3H-xanthen-9-yl)phenyl]amino]thioxomethyl]amino]-1-oxohexyl]-L-phenylalanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



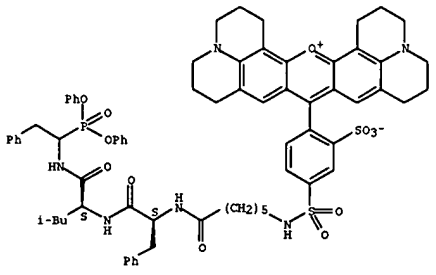
RN 197984-51-3 CAPLUS
CN L-Leucinamide, N-[6-[[[2(or 4)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)-5-sulfophenyl]sulfonyl]amino]-1-oxohexyl]-L-phenylalanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]-, inner salt (9CI) (CA INDEX NAME)

L12 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 198629-89-9 CAPLUS
CN L-Leucinamide, N-[6-[[[4-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)-3-sulfophenyl]sulfonyl]amino]-1-oxohexyl]-L-phenylalanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]-, inner salt (9CI) (CA INDEX NAME)

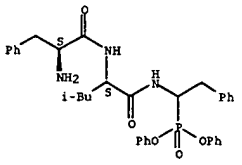
Absolute stereochemistry.



IT **157197-34-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of fluorescent peptidylaminoalkanephosphonate derivs. for detecting serine proteases in biol. media)
RN 157197-34-7 CAPLUS
CN L-Leucinamide, L-phenylalanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

L12 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

Absolute stereochemistry.



● HCl

L12 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

AB Di-Ph 1-(N-peptidylamino)alkanephosphonate esters are highly reactive, specific, and aqueously stable irreversible inhibitors which can be used to probe the functions of many serine proteases, including the lymphocyte granzymes. We synthesized 16 peptide phosphonates with Ala, Met, Phe, or Val P1 amino acid residues, including two biotinylated derivs. for future functional and biochem. characterization of granzymes. The reactivity of the inhibitors was characterized with human leukocyte elastase (HLE), porcine pancreatic elastase (PPE), bovine chymotrypsin, and the granzymes of natural killer (NK) cells, which include a number of proteolytic activities (Asp-ase, Met-ase, etc.) that cleave peptide substrates with these residues in the P1 position. The reactivity and specificity of the phosphonates depended on the length and sequence of the peptidyl moiety and on the leaving group. Z-Ala-Ala-AlaP(OPh)2 was a good inhibitor of HLE and PPE (kobsd/[I] = 38 and 30 M-1 s-1, resp.) and had little reactivity with chymotrypsin. Z-Phe-Pro-Phe-P(OPh)2 was a good inhibitor of chymotrypsin (kobsd/[I] = 17,000 M-1s-1) and had little reactivity with the elastases. The leaving group of Z-MetP(OPh-4-Cl)2 made it a more effective chymotrypsin inhibitor than Z-MetP(OPh)2 (kobsd/[I] values of 142 and 30 M-1s-1, resp.). With granzymes, the compds. reacted with a fraction of the Met-ase, chymase, and Ser-ase activities and lacked reactivity with Asp-ase and tryptase. Z-MetP(OPh-4-Cl)2 was an excellent inhibitor of Met-ase 1. Bi-Aca-Aca-Phe-Leu-PheP(OPh)2 appears to react specifically with one chymase while leaving other chymases untouched. Perforin-dependent lysis mediated by cytotoxic lymphocyte granules was inactivated by Z-Ala-Ala-AlaP(OPh)2, Z-MetP-(OPh-4-Cl)2, Z-Leu-PheP(OPh)2, and Bi-Aca-Aca-Phe-Leu-PheP(OPh)2. The biochem. properties and biol. efficacy of these inhibitors make them suitable for cellular and physiol. studies of granzyme function.

AN 1997:545924 CAPLUS

DN 127:244673

TI Synthesis and kinetic studies of diphenyl 1-(N-peptidylamino)alkanephosphonate esters and their biotinylated derivatives as inhibitors of serine proteases and probes for lymphocyte granzymes

AU Abuelyaman, Ahmed S.; Jackson, Delwin S.; Hudig, Dorothy; Woodard, Susan L.; Powers, James C.

CS Georgia Institute of Technology, The School of Chemistry and Biochemistry, Atlanta, GA, 30332-0400, USA

SO Archives of Biochemistry and Biophysics (1997), 344(2), 271-280
CODEN: ABBIA4; ISSN: 0003-9861

PB Academic

DT Journal

LA English

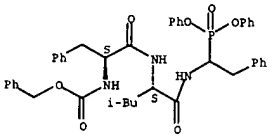
IT **157197-29-0P 195623-13-3P 195623-14-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis and kinetic studies of di-Ph 1-(N-peptidylamino)alkanephosphonate esters and biotinylated derivs. as inhibitors of serine proteases and probes for lymphocyte granzymes)

RN 157197-29-0 CAPLUS

CN L-Leucinamide, N-[(phenylmethoxy)carbonyl]-L-phenylalanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

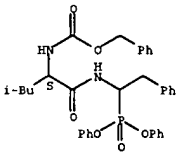
L12 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 195623-13-3 CAPLUS

CN Carbamic acid, [1-[[[1-(diphenoxyphosphinyl)-2-phenylethyl]amino]carbonyl]-3-methylbutyl]-, phenylmethyl ester, (1S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

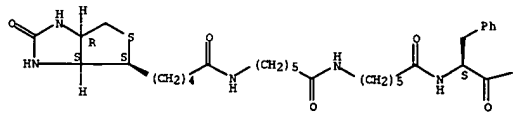


RN 195623-14-4 CAPLUS

CN L-Leucinamide, N-[6-[(6-[(5-[(3aS,4S,6aS)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]amino]-1-oxohexyl]-L-phenylalanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]- (9CI) (CA INDEX NAME)

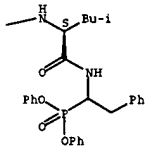
Absolute stereochemistry.

PAGE 1-A



L12 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B

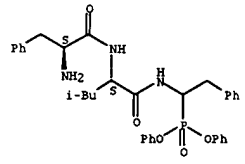


IT **157197-34-7 195623-18-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and kinetic studies of di-Ph 1-(N-peptidylamino)alkanephosphonate esters and biotinylated derivs. as inhibitors of serine proteases and probes for lymphocyte granzymes)

RN 157197-34-7 CAPLUS

CN L-Leucinamide, L-phenylalanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



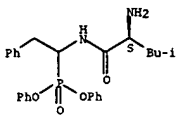
● HCl

RN 195623-18-8 CAPLUS

CN Phosphonic acid, [1-[(2-amino-4-methyl-1-oxopentyl)amino]-2-phenylethyl]-, diphenyl ester, monohydrochloride, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

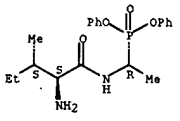
L12 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● HCl

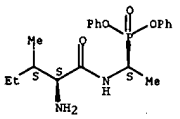
RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 178150-13-5 CAPLUS
CN Phosphonic acid, [(1S)-1-[[(2S,3S)-2-amino-3-methyl-1-oxopentyl]amino]ethyl]-, diphenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



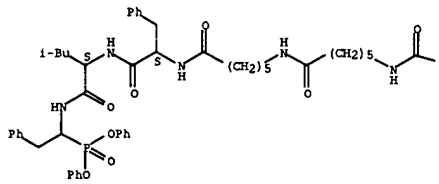
L12 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
AB A number of dipeptide di-Ph phosphonate esters were studied as inhibitors of dipeptidyl peptidase IV, focusing on the role of the P2 residue in the inactivation process. The active compds. were slow irreversible inhibitors of the catalytic activity of the enzyme. With proline (or alanine) in the P1 position, the rate consts. of inactivation correlated with the acylation rate consts. reported for homologous dipeptide derived substrates. The kinetic data indicate that the mechanism of inhibition consists of the formation of a fairly weak initial complex, followed by a slow irreversible inactivation step. This indicates that, as in the case of trypsin-like proteinases, dipeptide di-Ph phosphonate esters form a covalent adduct with the catalytic site of DPP IV, even though this enzyme belongs to a completely distinct class of serine peptidases. Enantioselectivity and secondary specificity further support the evidence that di-Ph phosphonate esters are mechanism-based inhibitors. The dipeptide di-Ph phosphonate esters had a half-life of 3-10 h at 37° in Tris buffer. The inhibitors were degraded in human plasma, depending on the type of amino-terminal amino acid. The compound with proline in the P2 position was the most resistant to degradation in plasma. Due to their stability and the irreversible nature of the inhibition, the di-Ph phosphonate esters promise to be useful tools in the continuing investigation of the physiol. function of dipeptidyl peptidase IV.
AN 1996:296800 CAPLUS
DN 125:52112
TI Dipeptide-derived diphenyl phosphonate esters: mechanism-based inhibitors of dipeptidyl peptidase IV
AU Lambeir, Anne-Marie; Borloo, Marianne; De Meester, Ingrid; Belyaev, Alexander; Augustyns, Koen; Hendriks, Dirk; Scharpe, Simon; Haemers, Achiel
CS Laboratories of Medical Biochemistry and Pharmaceutical Chemistry, Department of Pharmaceutical Sciences, University of Antwerp (U.I.A.), Wilrijk, B-2610, Belg.
SO Biochimica et Biophysica Acta (1996), 1290(1), 76-82
CODEN: BBACAQ; ISSN: 0006-3002
PB Elsevier
DT Journal
LA English
IT **177599-07-4 178150-13-5**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(dipeptide-derived di-Ph phosphonate esters as mechanism-based inhibitors of dipeptidyl peptidase IV)
RN 177599-07-4 CAPLUS
CN Phosphonic acid, [1-[(2-amino-3-methyl-1-oxopentyl)amino]ethyl]-, diphenyl ester, [2S-[1(S*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L12 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
AB An irreversible serine protease inhibitor, biotinyl-Aca-Aca-Phe-Leu-PheP(OPh)2, was shown to selectively inhibit a chymotrypsin-like (chymase) serine protease activity of rat RNK-16 granule exts. Under the same conditions, only one 30-kDa (reduced) band was detected on protein blots. Furthermore, only 1 of 3 chymase peaks separated by hydrophobic interaction chromatog. was inhibited. When this granzyme was inhibited, granule-mediated lysis of erythrocytes was diminished. NK cell killing was completely blocked when biotinyl-Aca-Aca-Phe-Leu-PheP(OPh)2 was added to cytotoxicity assays at 200 μM with rat splenocytes as effectors. By confocal fluorescence microscopy, it was shown that this inactivated the chymase activity and reduced lysis found in their dense organelles. Together these data indicate that biotinyl-Aca-Aca-Phe-Leu-PheP(OPh)2 inhibits a granule chymase that is essential to cytolytic activity of NK cells.
AN 1995:225014 CAPLUS
DN 122:312860
TI Chymase-directed serine protease inhibitor that reacts with a single 30-kDa granzyme and blocks NK-mediated cytotoxicity
AU Woodard, Susan L.; Jackson, Delwin S.; Abuelyaman, Ahmed S.; Powers, James C.; Winkler, Ulrike; Hudig, Dorothy
CS Dept. Microbiology, Univ. Nevada, Reno, NV, 89557, USA
SO Journal of Immunology (1994), 153(11), 5016-25
CODEN: JOIMA3; ISSN: 0022-1767
PB American Association of Immunologists
DT Journal
LA English
IT **163518-06-7**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(chymase-directed serine protease inhibitor that reacts with single 30-kDa granzyme and blocks NK-mediated cytotoxicity)
RN 163518-06-7 CAPLUS
CN L-Leucinamide, N-[6-[[6-[[5-(hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl)-1-oxopentyl]amino]-1-oxohexyl]amino]-1-oxohexyl]-L-phenylalanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]- (9CI) (CA INDEX NAME)

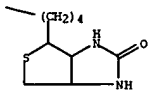
Absolute stereochemistry.

PAGE 1-A



L12 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



L12 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

AB Three fluorescein- and one Texas Red-labeled derivs. of [1-(N-dipeptidylamino)alkyl]phosphonate di-Ph esters were synthesized and evaluated as inhibitors of serine proteases. The two fluorophores, FITC and TXR, were attached to the peptide phosphonates via an e-aminocaproyl unit that acts as a spacer group and facilitates the binding of the phosphonate inhibitor to the targeted enzymes. These derivs. are potent and specific inhibitors of chymotrypsin, porcine pancreatic elastase (PPE), and human leukocyte elastase (HLE). FTC-Aca-Phe-Leu-PheP(OPh)2 (3) inhibited chymotrypsin very potently (kobsd/[I] = 9500 M-1 s-1) and 600-fold better than it did PPE (kobsd/[I] = 16 M-1 s-1). FTC-Aca-Ala-Ala-MetP(OPh)2 (1) was a more effective inhibitor of chymotrypsin (kobsd/[I] = 190 M-1 s-1) than PPE and HLE (kobsd/[I] = 13 and 22 M-1 s-1, resp.). Only HLE and PPE were inhibited by FTC-Aca-Ala-Ala-AlaP(OPh)2 (2) (kobsd/[I] = 41 and 22 M-1 s-1, resp.). The specificity of these inhibitors toward the targeted serine proteases depends on the sequence of the tripeptide portion and was not affected by the presence of the fluorescent label. Trypsin, for instance, was not inhibited by any of these compds. In some cases, the inhibitory potency was increased by the fluorescent label. For example, chymotrypsin was inhibited by the fluorescent compds., FTC-Aca-Ala-Ala-MetP(OPh)2 (1) and FTC-Aca-Phe-Leu-PheP(OPh)2 (3), more potently than by the nonfluorescent compds., Boc-Ala-Ala-MetP(OPh)2 (5) and Z-Phe-Leu-PheP(OPh)2 (7). Initial expts. with cytotoxic lymphocytes indicate that FTC-Aca-Ala-Ala-MetP(OPh)2 labels discrete granule-like regions where the serine proteases of the NK cell line, RNK-16, are stored.

AN 1995:21000 CAPLUS

DN 122:49805

TI Fluorescent Derivatives of Diphenyl [1-(N-Peptidylamino)alkyl]phosphonate Esters: Synthesis and Use in the Inhibition and Cellular Localization of Serine Proteases

AU Abuelyaman, Ahmed S.; Hudig, Dorothy; Woodard, Susan L.; Powers, James C.

CS School of Chemistry and Biochemistry, Georgia Institute of Technology, Atlanta, GA, 30332-0400, USA

SO Bioconjugate Chemistry (1994), 5(5), 400-5
CODEN: BCCHES; ISSN: 1043-1802

DT Journal

LA English

IT **157197-36-9P 160041-08-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and serine proteinases inhibition by)

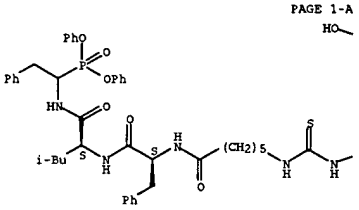
RN 157197-36-9 CAPLUS

CN L-Leucinamide, N-[6-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]thioxomethyl]amino]-1-oxohexyl]-L-phenylalanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]- (9CI) (CA INDEX NAME)

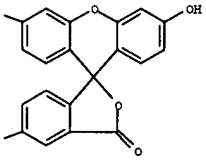
Absolute stereochemistry.

L12 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

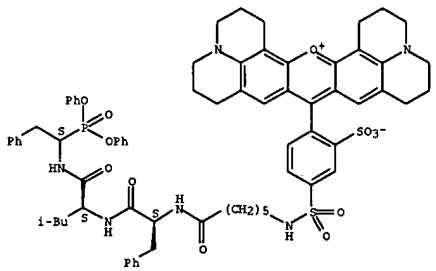


RN 160041-08-7 CAPLUS

CN L-Leucinamide, N-[6-[[[4-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)-3-sulfophenyl]sulfonyl]amino]-1-oxohexyl]-L-phenylalanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]-, inner salt, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L12 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

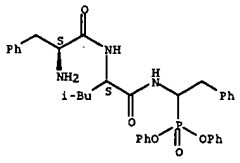


IT **157197-34-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with fluorescent aminocaproic acid derivative)

RN 157197-34-7 CAPLUS

CN L-Leucinamide, L-phenylalanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

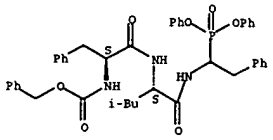
IT **157197-29-0**
RL: BIOL (Biological study)
(serine proteinases inhibition by, fluorescent analog in relation to)

RN 157197-29-0 CAPLUS

CN L-Leucinamide, N-[(phenylmethoxy)carbonyl]-L-phenylalanyl-N-[1-(diphenoxyphosphinyl)-2-phenylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L12 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L12 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
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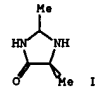
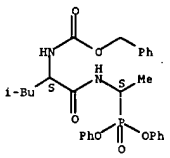


AB Derivs. of α-amino acids with 2 stereogenic centers (cf. L-threonine) and of di-, tri-, and tetrapeptides are electrolyzed in MeOH or AcOH, with formation of N-acyl-N,O-acetals, in an anodic oxidative substitution of the COOH by an OR group. Thus, the electrochem. decarboxylation of protected dipeptide Z-Ala-Ala-OH (Z = PhCH2OC) in MeOH gave Z-Ala-NHCH(OMe)Me. With unprotected dipeptides, e.g. H-Ala-Ala-OH, the electrochem. decarboxylation may give imidazolidinones, e.g. I, in NH4OAc/H2O. The electrolyses are carried out in simple flasks with cooling jackets (undivided cell), using constant current conditions and anodes of Pt or glassy C. The electrolyte is generated in situ by adding 10-20 mol-% of a tertiary amine. Mild acidic hydrolysis of electrolysis products thus obtained may lead to amino acid amides or peptide amides with 1 amino acid less than the starting material. The N,O-acetals from L-threonine and the oligopeptides also react with organometallic nucleophiles, such as Grignard compds., with formation of products in which the original COOH group has been replaced by alkyl or allyl (sometimes even with moderate stereoselectivity). By treatment of the peptide-derived (open-chain) N,O-acetals with trialkyl or triaryl phosphites/TiCl4, the RO group is replaced by a phosphodiester group in a (non-diastereoselective) Michaelis-Arbuzov-type reaction. Thus, the 2-step sequence of electrolysis and phosphonation converts an oligopeptide derivative to an analog with a phosphonic acid end group. The diastereoisomeric N-protected di-Me and di-Et dipeptidephosphonates could be separated by preparative HPLC.
AN 1990:179809 CAPLUS
DN 112:179809
TI Electrochemical decarboxylation of L-threonine and oligopeptide derivatives with formation of N-acyl-N,O-acetals: preparation of oligopeptides with amide or phosphonate C-terminus
AU Seebach, Dieter; Charczuk, Roland; Gerber, Christian; Renaud, Philippe; Berner, Heinz; Schneider, Helmut
CS Lab. Org. Chem., ETH, Zurich, CH-8092, Switz.
SO Helvetica Chimica Acta (1989), 72(3), 401-25
CODEN: HCACAV; ISSN: 0018-019X
DT Journal
LA German
OS CASREACT 112:179809
IT **126306-94-3P 126306-95-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
RN 126306-94-3 CAPLUS
CN Carbamic acid, [1-[[[1-(diphenoxyphosphinyl)ethyl]amino]carbonyl]-3-

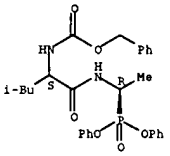
L12 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
methylbutyl]-, phenylmethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

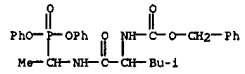


RN 126306-95-4 CAPLUS
CN Carbamic acid, [1-[[[1-(diphenoxyphosphinyl)ethyl]amino]carbonyl]-3-methylbutyl]-, phenylmethyl ester, [R-(R*,S*)]- (9CI) (CA INDEX NAME)

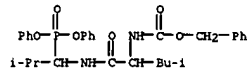
Absolute stereochemistry.



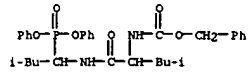
L12 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
AB In the synthesis of phosphopeptides H-X-NHCHRP(O)(OH)2 (I; X = Ala, Leu, R = Me; X = Ala, Val, Leu, Pro, R = CHMe2; X = Val, Leu, Pro, R = CH2CHMe2) from the corresponding Z-X-OH (Z = PhCH2OC) and H2NCHRP(O)(OPh)2, the removal of the Ph group from the resulting Z-X-NHCHRP(O)(OPh)2 was achieved by a transesterification with MeOH/KF/crown ether to give Z-X-NHCHRP(O)(OMe)2 which was then deblocked by HBr/HOAc to give the appropriate I.
AN 1982:510377 CAPLUS
DN 97:110377
TI Transesterification of diphenyl phosphonates using the potassium fluoride/crown ether/alcohol system. Part 2. The use of diphenyl 1-aminoalkanephosphonates in phosphonopeptide synthesis
AU Lejczak, Barbara; Kafarski, Pawel; Szewczyk, Jerzy
CS Inst. Org. Phys. Chem., Tech. Univ. Wroclaw, Wroclaw, 50-370, Pol.
SO Synthesis (1982), (5), 412-14
CODEN: SYNTBF; ISSN: 0039-7881
DT Journal
LA English
IT **82818-40-4P 82818-43-7P 82818-46-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and transesterification of, with methanol in presence of potassium fluoride and crown ether)
RN 82818-40-4 CAPLUS
CN Carbamic acid, [1-[[[1-(diphenoxyphosphinyl)ethyl]amino]carbonyl]-3-methylbutyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)



RN 82818-43-7 CAPLUS
CN Carbamic acid, [1-[[[1-(diphenoxyphosphinyl)-2-methylpropyl]amino]carbonyl]-3-methylbutyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)



RN 82818-46-0 CAPLUS
CN Carbamic acid, [1-[[[1-(diphenoxyphosphinyl)-3-methylbutyl]amino]carbonyl]-3-methylbutyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)



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